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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,238	10/23/2003	Huamin Chen	YOR920030422US1	1434

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EXAMINER
SALL, EL HADJI MALICK

ART UNIT	PAPER NUMBER
2157	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
	10/693,238	CHEN ET AL.
Office Action Summary	Examiner	Art Unit	
	El Hadji M. Sall	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 October 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/15/03</u>.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to the application filed on October 23, 2003. Claims 1-

376 are pending. Claims 1-37 represent method and systems for dynamically

reconfigurable load balancing.

2.   *Claim Rejections - 35 USC § 102*

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent

by another filed in the United States before the invention thereof by the applicant

for patent, or on an international application by another who has fulfilled the

requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before

the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3.   Claims 1-35 and 37 are rejected under 35 U.S.C. 102(e) as being unpatentable

over Goodman et al. U.S. 7,020,697.

Goodman teaches the invention as claimed including Architectures for netcentric

computing systems (see abstract).

As to claims 1, 17, 29-31 and 37, Goodman teaches a method, an apparatus, an

article of manufacture and a system for serving data to a plurality of clients in a client-

server environment, comprising the steps of:

providing a plurality of versions of data in which at least two versions have

different overheads associated therewith (column 69, lines 15-18);

assigning individual clients to one of a plurality of quality-of-service classes

(column 99, lines 52-61); and

satisfying requests so that a client belonging to a high quality-of-service class is

given preferential access to data versions which require higher overheads to serve

(column 25, 3-21).

As to claims 2 and 18, Goodman teaches the method and the apparatus of

claims 1 and 17, wherein the overhead to serve a version is correlated with a quality of

the version (column 27, lines 14-23).

As to claims 3 and 19, Goodman teaches the method and the apparatus of

claims 2 and 18, wherein the multiple versions comprise images of different resolutions

and clients belonging to a high quality-of-service class are given preferential access to

higher resolution images (column 99, lines 52-61).

As to claims 4 and 20, Goodman teaches the method of claims 2 and 18,

wherein the quality of a version is correlated with a processing time required to create

the version (column 26, lines 33-40).

As to claims 5 and 21, Goodman teaches the method of claims 1 and 17,

wherein the overhead to serve a version is correlated with how current the version is

(column 22, lines 4-12).

As to claims 6 and 22, Goodman teaches the method and the apparatus of

claims 1 and 17, further comprising the step of: in response to a system load exceeding

a threshold, satisfying a higher percentage of requests from clients belonging to a lower

quality-of-service class with a version requiring lower overhead to serve (column 25, 3-

21).

As to claims 7 and 23, Goodman teaches the method and the apparatus of claims 1 and 17, wherein the server comprises multiple nodes and different nodes provide data versions requiring different overheads to serve (figure 4).

As to claims 8, 9, 10, 11, 24, 25, 26 and 27, Goodman teaches the method and the apparatus of claims 1, 8, 17 and 24, further comprising the step of implementing a quality-of-service policy that specifies at least one of content quality and latency, wherein one or more clients belonging to a premium service class are served with high content quality and low latency, wherein one or more clients belonging to a medium service class are served with one of high content quality and low latency, and wherein one or more clients belonging to a best-effort service class are served with unspecified content quality and latency (column 79, lines 35-59; column 98, lines 46-58).

As to claims 12 and 28, Goodman teaches the method of claims 1 and 17, wherein a client request is routed using at least one of an identity of the client, a quality of content, a load on at least one server, a data distribution on at least one server, and a capacity of at least one server (column 108, lines 30-44).

As to claims 13 and 14, Goodman teaches the method of claims 1 and 13, wherein a client is assigned to a quality-of-service class by program logic that is externalized from the server, wherein the externalized program logic comprises a set of business rules that can be modified by nonexperts in information technology (column

99, lines 52-61; column 112, lines 25-36).

As to claims 15 and 16, Goodman teaches the method of claims 1 and 15, further comprising the step of satisfying requests using a policy determined by program logic that is externalized from the server, wherein the externalized program logic comprises a set of business rules that can be modified by nonexperts in information technology (column 25, 3-21).

As to claim 32, Goodman teaches the method of claim 31, wherein the data serving service comprises a quality-of-service policy specification (column 99, lines 52-53). `

AS to claim 33, Goodman teaches the method of claim 32, wherein the quality-of-service policy specification comprises: a plurality of subscriptions, each subscription being specified by content quality and service latency, wherein a limited premium service subscription is served with high content quality in low service latency, a medium service subscription is served with a high content quality or a low service latency, and an unlimited best-effort service subscription is served with unspecified content quality and latency (column 79, lines 35-59; column 98, lines 46-58).

As to claims 34 and 35, Goodman teaches the of claims 31 and 34, wherein the service provider modifies data content and how the data content is served to clients in

response to one or more changing conditions (column 114, line 56 to column 115, line

4).

4.   *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed

or described as set forth in section 102 of this title, if the differences between the

subject matter sought to be patented and the prior art are such that the subject

matter as a whole would have been obvious at the time the invention was made

to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negatived by the manner in which the invention was

made.

5.   Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Goodman et al. U.S. 7,020,697 in view of Huff U.S. 20040003080.

Goodman teaches the invention substantially as claimed including Architectures

for netcentric computing systems (see abstract).

As to claim 36, Goodman teaches the method of claim 31.

Goodman fails to teach explicitly the step of assigning individual clients to one of a plurality of quality-of-service classes is based on a client payment.

However, Huff teaches method and system for managing quality of service in a network. Huff teaches the step of assigning individual clients to one of a plurality of quality-of-service classes is based on a client payment (paragraph [0012]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Goodman in view of Huff to provide the step of assigning individual clients to one of a plurality of quality-of-service classes is based on a client payment. One would be motivated to do so to allow identifying relative priorities of the clients (abstract).

6.   ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to El Hadji M Sall whose telephone number is 571-272-4010. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-4010.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for
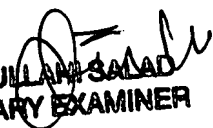
published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

ABDULLAH SALAD
PRIMARY EXAMINER

El Hadji Sall
Patent Examiner
Art Unit: 2157